DESCRIPTION OF A NEW TIGER-BEETLE FROM THE WYNDHAM DISTRICT.

With some notes on recent works on Australian Cicindelidae.

By THOMAS G. SLOANE.

(One text-figure.)

CICINDELA CLARKI, n. sp.

Subeylindrical; prothorax with a strong anterior and posterior transverse impression; elytra convex, strongly and densely punctate; head and pronotum asetose, sternal side parts, lateral parts of ventral segments 1-4, and eoxao hearing white setae; antennae slender; labial palpi with penultimate joint elongate (but not slender), apical joint short; mentum with median tooth short, triangular; labrum 7-dentate with four marginal setae; four anterior trochanters asetose. Upper surface eupreous (sometimes elytra rather aeneous) under surface metallic blue tending to green on sides; labrum lacteous with a large dark semicircular basal area; each elytron with two white spots on apical half,

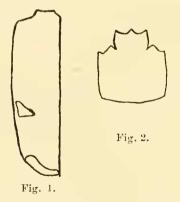


Fig. 1. Left elytron, to show the pattern. Fig. 2. 1

Fig. 2. Labrum, to show shape.

the anterior spot lateral, broader than long, not touching external margin nor extending inward to half the width of elytron, apical spot forming a wide margin along apical curve reaching inward almost to suture; trochanters piecous, femora green, tibiae and tarsi bluish.

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6. Head 2.5 mm. across eyes, concave and striolate between eyes; occiput transversely rugulose; labrum large, median part porrect, parallel on sides, with three subequal prominent teeth, a short seta on each side of apical tooth, incision between second and third teeth deep, narrow, asetose, posterior tooth prominent, placed just before middle of length, emargination before it bearing a short seta. Prothorax as long as broad ($1.5 \times 1.5 \text{ mm.}$); disc strongly convex, slightly rugnlose. Elytra much wider than prothorax ($4.5 \times 2.5 \text{ mm.}$); puncturation very strong and rather uneven. Length 7-9, breadth 2.5-2.7 mm.

Hab.—North West Australia: Wyndham and Forrest River. Several specimens were sent to me by Mr. John Clark of Perth, Western Australia.

Allied to *C. oblongicollis* Macl., of which *C. tenuicollis* Macl., is considered by Dr. W. Horn to be a red form. From *C. leai* Sl., to which it is closely allied, it differs by size larger, labrum with median apical part more prominent, all the teeth and the notches between them more strongly developed, labial palpi with penultimate joint longer and not so thick, more setose; prothorax with middle part more convex, transverse impressions deeper; elytra with apical white spots larger, extending along the whole length of the apical margin, but separated from one another at the suture: abdomen with a lateral white stripe of setae along the sides of segments 1-4 (In *C. leai* there are only four or five separate white setae on the side of the basal segment). From *C. tenuicollis* Macl., it differs even more markedly than from *C. leai* by size large; labrum larger and with apical median part more prominent; white spots of elytra larger. The wide continuous lateral stripe on each side of ventral segments 1-4 is also a conspicuous difference. In *C. tenuicollis* there are (from a damaged specimen in my collection) a few white setae on the sides of segments 1 and 2.

CICINDELA RAFFLESIA Chaudoir.

Specimens in my collection $(\mathcal{S}, \mathbb{P})$ from Carnarvon differ from specimens from northern Queensland by having the metallic parts of the pattern cupreous, not viridaeneous; and by having the four anterior trochanters each with a fixed seta, not only the trochanters of the fore-legs. In these characters I have not found any variation amongst the eastern specimens which I have been able to examine, but the eastern and western specimens are certainly conspecific, though it has yet to be discovered whether the range of *C. rafflesia* is continuous from Cape York Peninsula to Carnarvon.

Notes.

(1). In 1915 Dr. Walther Horn published the third part of his magnificent monograph of the family *Cicindelidae*^{*}. In this masterly work Dr. Horn records all the *Cicindelidae* of the world known to 1915 (including all species, and subspecies, with their synonymy); he gives tables of the tribes, subtribes, and genera, but not of the species. In part iii. he deals with the subtribe Cicindelina (three genera, viz., *Cicindela* with about 595 species, and about 260 chief races, *Eurymorpha* and *Apteroessa* with 1 species each. He uses the genus *Cicindela* in its widest sense (including in it 29 synonyms and 13 "groups" which various author's have thought wortby of distinct names), and to render it less difficult to make out the species of this immense genus he treats the species of each

*Wytsman's Genera Insectorum. Col. Adeph., Cicindelidae, W. Horn. Fasc. 82^A (1908), 82^B (1910), 82^C (1915); 486 pp., 23 plates.

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faunal region separately, dividing them into numerous independent groups, using the fixed hairs of the four anterior trochanters for his primary groupcharacter. Dr. Horn records 68 species[†] of the genus *Cicindela* from the Australian faunal region as a whole; these he divides into 27 groups, of which 12 groups containing 25 species are represented in Australia. Dr. Horn's grouping of the Australian species agrees substantially with the system of groups adopted by me in my Revision of the *Cicindelidae* of Australia in 1906, but he does not recognise my *Cicindela-spuriae* and-*verae*, and he arranges the species in a different order. He also uses more groups than I would. The following are his changes from my system:—*C. doddi* is united with the *C. oblongicollis*-group; *C. discreta*, *C. semicincta*, *C. blackburni*, *C. browni*, *C. frenchi* and *C. darwini* constitute separate monotypic groups. Dr. Horn's groups are more constricted than mine, but I think he is right in segregating *C. frenchi* and *C. darwini*.

(2). Mr. A. M. Lea (Trans. Roy. Soc. South Aust., 1917, pp. 121-125) published some notes on Australian *Cicindelidae*, when he described 2 new species, viz., *Distypsidera pictipennis* (allied to *D. gruti* Pase, from Stewart River, north of Cooktown) and *Cicindela antiqua* (allied to *C. albicans* Chaud., from Derby, N.W. Australia). He also suggests that *C. albicans* is a variety of *C. ypsilon* Dej., and that *C. plebeia* Sl., should be considered distinct from both *C. mastersi* Cart. and its subspecies *C. catoptriola* Horn.

(3). Frof. Mjoberg (Arkiv för Zoologi, Band 10, 1916) gives a list of the species of *Cicindelidae* collected by him in Australia from 1910 to 1913, describing 2 species as new, viz., *Megacephala kimberleyensis* (Fitzroy River, N.W. Australia) and *Distypsidera sericea* (closely allied to *D. parva* Macl., from Malanda, North Queensland).

(4). Dr. Walther Horn (Arkiv för Zoologi, Band 13, 1920) reviewed Mjoberg's notes on Australian *Cicindelidae*, making critical remarks on the species, and pointing out some errors of identification made by Mjoberg, also describing as new *Megacephala sloanei* (allied to *M. intermedia* Sl., from Australia).

†Since Dr. Horn's work in 1915 the following species have been described from Australia: -C. gilesi Sl., C. aeneodorsis Sl., C. antiqua Lea, and C. clarki Sl.